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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/594,645

09/28/2006

Magnus Pelz

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2352 7590 05/06/2009
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EXAMINER

DUFF, DOUGLAS J

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

05/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/594,645	Applicant(s) PELZ ET AL.	
	Examiner DOUGLAS J. DUFF	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

This Office Action is in response to Applicant's amendment filed 2/27/09.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schonfeld et al (US 5607010) in view of Aupperle et al. (US 20040050374).

Regarding claim 1, Schonfeld et al. discloses an EGR system in a supercharged engine (2) comprising an exhaust line (8) operable to lead exhaust gases out from the combustion engine, an inlet line (11) operable to lead air at above atmospheric pressure to the engine, a return line (10) comprising a connection to the exhaust line and a connection to the inlet line, so that the return line is operable to recirculate exhaust from the exhaust line to the inlet line and a liquid-medium cooler (12) operable to cool exhaust in the return line by use of a liquid medium (16), a cooler (7), the cooler incorporated in the inlet line downstream from the connection of the return line to the inlet line so that, when the exhaust is returned via the return line, the first cooler cools the mixture of exhaust gases and the first air before the mixture is led to the engine (Fig.

1). Schonfeld fails to disclose the cooler cooled by ambient air.

3. Aupperle teaches an EGR system with a first cooler cooled by ambient air (paragraph 0017). It would have been obvious for a person having ordinary skill in the

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art at the time the invention was made to utilize ambient air for the first cooler in order to reduce the exhaust gas temperature to a level that satisfies the engine system demands.

4. Regarding claims 2-7, 9 and 10, the modified Schonfeld device discloses the arrangement of claim 1 including a cooling system containing a liquid medium operable for cooling the engine (Aupperle, paragraph 0017), a liquid medium cooler (radiator) arranged in close physical proximity to and engine coolant cooler (Fig. 1) operable to cool the liquid medium for cooling the engine, an EGR valve (4.3) in the return line, a control unit operable for controlling the EGR valve, a turbine (2.3) positioned and operable for being driven by exhaust not in the return line and a compressor (3.1) to be driven by the turbine so the compressor compresses air in the inlet line, the engine being a diesel or Otto engine.

5. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schonfeld in view of Aupperle as applied to claim 7 above, and further in view of Bailey (US 6003315). The modified Schonfeld device discloses the device of claim 7, but fails to disclose a venturi between the return line and the inlet line which delivers returned exhaust gases into the inlet line.

6. Bailey teaches an EGR system with a venturi (52) between the return line and the inlet line which delivers returned exhaust gases into the inlet line. It would have been obvious for a person having ordinary skill in the art at the time the invention was made to utilize a venture in order to allow the lower pressure exhaust gas from the

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exhaust manifold to be drawn into the intake circuit and fed into the engine with intake air (col. 5, lines 54-57).

7. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schonfeld et al. in view of Aupperle et al. as applied to claim 1 above, and further in view of Watanabe et al. (US 5720341). The modified Schonfeld device discloses the invention of claim 1, but fails to disclose the air cooler parallel to an engine coolant cooler.

8. Watanabe et al. teaches an engine arrangement with a cooler parallel to an engine coolant cooler (Fig. 32). It would have been obvious for a person having ordinary skill in the art at the time the invention was made to utilize a parallel arrangement of the air cooler and the engine coolant cooler in order to reduce weight and size of the heat exchanger unit (col. 1, lines 57-61).

Response to Arguments

9. Applicant's arguments filed 2/27/09 have been fully considered but they are not persuasive. Applicant argues that Aupperle fails to disclose a cooler downstream from the return line connection. However, this limitation is taught by Schonfeld (7), as recited in the rejection above. As cited above, Schonfeld simply fails to disclose that its downstream cooler (7) is cooled by ambient air. Aupperle is introduced to show that it is well known and obvious for the downstream cooler of Schonfeld (7) to be cooled by ambient air (Aupperle, paragraph 0017).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOUGLAS J. DUFF whose telephone number is (571)272-3459. The examiner can normally be reached on M-Th 7 AM - 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas E. Denion/
Supervisory Patent Examiner, Art Unit 3748

/Douglas J Duff/
Examiner, Art Unit 3748
5/4/09